

What is claimed:

1 1. An automatic gain control method of achieving a
2 constant output signal by controlling a gain variable
3 amplifying means according to a control signal which is
4 generated based on a level of an output signal which is
5 derived by variably amplifying an input signal, the method
6 comprising the steps of:

7 a detecting step of detecting an amplified output
8 signal;

9 a control signal generating step of generating the
10 control signal for the gain variable amplifying means based
11 on a detected voltage signal obtained by detection;

12 a detected voltage signal holding step of holding the
13 detected voltage signal;

14 a signal level detecting step of detecting a
15 transmitting signal level from the input signal;

16 a signal level holding step of holding the
17 transmitting signal level;

18 a comparing step of comparing the transmitting signal
19 level held at present execution of the gain control with
20 the transmitting signal level held at preceding execution
21 of the gain control; and

22 a control signal outputting step of outputting the
23 control signal to the gain variable amplifying means based
24 on the detected voltage signal held at preceding execution

of the gain control when the present control signal for a gain variable amplifier is lower in level than the preceding control signal for the gain variable amplifier and the present transmitting signal level is reduced below the preceding transmitting signal level.

2. An automatic gain control device for achieving a constant output signal by controlling a gain variable amplifying means according to a control signal which is generated based on a level of an output signal which is derived by variably amplifying an input signal, the device comprising:

a detecting means which detects an amplified output signal;

a control signal generating means which generates the control signal for the gain variable amplifying means based on a detected voltage signal obtained by the detecting means;

a detected voltage signal holding means which holds the detected voltage signal;

a signal level detecting means which detects a transmitting signal level from the input signal;

a signal level holding means which holds the transmitting signal level;

a comparing means which compares the transmitting signal level held at present execution of the gain control

21 with the transmitting signal level held by the signal level
22 holding means at preceding execution of the gain control;
23 and

24 a control signal outputting means which outputs the
25 control signal to the gain variable amplifying means based
26 on the detected voltage signal held by the detected voltage
27 signal holding means at preceding execution of the gain
28 control when the present control signal for a gain variable
29 amplifier is lower in level than the preceding control
30 signal for the gain variable amplifier and also the present
31 transmitting signal level is reduced below the preceding
32 transmitting signal level.